# Bonneville Power Administration Fish and Wildlife Program FY99 Proposal Form

## Section 1. General administrative information

# **Enhancement Between Selah and Union Gaps**

Bonneville project number, if an ongoing project 9705200				
Business name of agency, Yakama Indian Nation	institution or organization requesting funding			
Business acronym (if app	ropriate) YIN			
Proposal contact person o	r principal investigator:			
Name	Scott Nicolai			
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Email address	snicolai@yakama.com			

**Subcontractors.** List one subcontractor per row; to add more rows, press Alt-Insert from within this table

Organization	Mailing Address	City, ST Zip	<b>Contact Name</b>

### NPPC Program Measure Number(s) which this project addresses.

Habitat goal 7.6A.2: "At a minimum, maintain the present quantity and productivity of salmon and steelhead habitat. Then, improve the productivity of salmon and steelhead habitat critical to recovery of weak stocks. Next, enhance the productivity of habitat for other stocks of salmon and steelhead. Last, provide access to inaccessible habitat that has been blocked by human development activities.

Policy 7.6B.3: "Give highest priority to habitat protection and improvement in areas of the Columbia Basin where low or medium habitat productivity or low pre-spawning survival for identified weak populations are limiting factors. Give priority to habitat projects that have been integrated into broader watershed improvement effort and that promote cooperative agreements with private landowners.

Policy 7.8E.1: "Implement land exchanges, purchases or easements of a sufficient width to improve and maintain salmon and steelhead production in privately owned riparian areas and adjacent lands, with full compensation of landowners. Consider factors such as need for fish passage facilities and potential improvements to instream flow conditions when purchasing or exchanging private property. In implementing this measure, acquisition of easement should be the preferred approach for protecting riparian areas and adjacent lands. Exchange or purchase that results in net gains of land in public ownership should be considered the lowest priority method for this purpose. States and federal agencies provide an updated list and report progress to the Council by December 31, 1993. In addition, federal agencies should provide to the council by December of each year, a list of high quality riparian lands that potentially could be acquired through exchange."

### NMFS Biological Opinion Number(s) which this project addresses.

Not applicable to this project.

### Other planning document references.

If the project type is "Watershed" (see Section 2), reference any demonstrable support from affected agencies, tribes, local watershed groups, and public and/or private landowners, and cite available documentation.

Wy Kan Ush Me Wa Kish Wit, (PAGE 3-20):

"Current land use practices commonly impact all freshwater habitats and have pervasive and widespread impacts on aquatic species (Chamberlin et al. 1991; Hicks et al. 1991; Platts 1991). They may also affect side channels and oxbow lakes, which are often some of the more productive of remaining fish rearing and refuge areas.

Policy of Washington Department of Fish and Wildlife and Western Washington Treaty Tribes Concerning Wild Salmonids, December 5, 1997, Policy Statement #14:

"Provide, restore, and maintain safe and timely pathways to all useable wild salmonid habitat in fresh and marine waters, for salmonids at all life stages.

## Subbasin.

Yakima subbasin.

## **Short description.**

Protect, restore, enhance, and reestablish access into productive habitats to optimize juvenile rearing success immediately upstream of Sunnyside Diversion Dam.

# Section 2. Key words

Mark	Programmatic	Mark		Mark	
	Categories		Activities		<b>Project Types</b>
X	Anadromous fish	+	Construction	X	Watershed
+	Resident fish	+	O & M	+	Biodiversity/genetics
+	Wildlife		Production	+	Population dynamics
	Oceans/estuaries		Research	+	Ecosystems
+	Climate	+	Monitoring/eval.	+	Flow/survival
+	Other	+	Resource mgmt		Fish disease
	(Education)		Planning/admin.		Supplementation
			Enforcement	+	Wildlife habitat en-
		X	Acquisitions		hancement/restoration

# Other keywords.

Conservation easement, channel avulsion, residential encroachment, bioengineering.

Section 3. Relationships to other Bonneville projects

Project #	Project title/description	Nature of relationship

# Section 4. Objectives, tasks and schedules

Objectives and tasks

Obj		Task	
1,2,3	Objective	a,b,c	Task
1.	Protect at-risk rearing habitats	a.	Collect maps, ownership
	and floodplain areas through		information, consult with real
	conservation easement purchase		estate organizations. Formulate
	and property acquisition.		data sheets.
		b.	Obtain permission to access
			private properties.
		c.	Conduct field surveys.
		d.	Prioritize habitat protection
			candidates based on cost/benefit
			analysis. If necessary, conduct
			Habitat Evaluation Procedures to
			develop priority list for purchase.
		e.	Develop MOA's with interested
			private landowners and land trust
			organizations.

1		f.	Conduct land appraisals,
		1.	hazardous materials assessments
			and lot line surveys where
			required.
		σ	Purchase property and/or
		g.	conservation easements.
		f.	Construct fences where necessary.
2.	Destare connectivity to off		•
2.	Restore connectivity to off-	a.	Consult aerial photographs,
	channel rearing habitats and floodplains.		conduct field surveys in key stream reaches.
	Hoodplains.	1.	
		b.	Prioritize habitat reconnection
			candidates based on cost/benefit
			analysis.
		c.	Develop MOA's with affected
			agencies, companies and private landowners.
		1	
		d.	Develop construction plans.
		e.	Release construction proposals for
			bids.
		f.	Secure bids, implement projects.
3.	Restore habitat function along	a.	Consult aerial photographs,
	the mainstem, in tributaries, and		conduct field surveys in key
	in off-channel alcoves.		stream reaches.
		b.	Prioritize habitat restoration
			projects based on cost/benefit
			analysis.
		c.	Develop MOA's with affected
			agencies, companies and private
			landowners.
		d.	Develop restoration plans.
		e.	Release construction-related
			portions of restoration projects for
			bids.
		f.	Secure bids, implement projects.
4.	Monitor and report results of	a.	Conduct snorkle and/or
	project activities.		electrofishing surveys in restored
			stream reaches.
		b.	If necessary, conduct statistical
			analysis' on smolt outmigration
			numbers at the Chandler juvenile
			facility.
		c.	Report project activities, including

findin	gs of snorkle surveys.
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# Objective schedules and costs

Objective #	Start Date mm/yyyy	End Date mm/yyyy	Cost %
1.	10/98	09/2001	74
2.	10/98	09/2001	15
3.	10/98	09/2001	7
4.	5/98	09/2001	4

### Schedule constraints.

Broken out by each objective, the potential time constraints are as follows:

Objective #1: Protect at-risk rearing habitats and floodplain areas through conservation easement purchase and property acquisition.

Time constraints include land availability, potential limitations of conservation easement recipients, weather limitations on land appraisals, contractor scheduling (for fence construction). Note: much of this objective has now been completed.

Objective #2: Restore connectivity to off-channel rearing habitats and floodplains.

Time constraints include construction season limitations, contractor schedules permitting delays, permit limitations, and coordinating with private landowners.

Objective #3: Restore habitat function in off-channel habitats.

Time constraints include construction season limitations, contractor schedules permitting delays, permit limitations, and coordinating with private landowners.

Objective #4: Monitor and report results of project activities.

Time constraints include weather limitations.

### Major milestones include:

- 1. Inventory subbasin within key reaches to prioritize protection, restoration and reconnection projects. Note: This has been completed.
- 2. Establish contact with private landowners and affected companies. Note: This has been completed.
- 3. Develop MOU's with interested parties. Note: this is in process.
- 4. Implement habitat protection/restoration/reconnection efforts. Note: several plans are now in place, though much additional work is needed.

### **Completion date.**

FY2001

# Section 5. Budget

FY99 budget by line item

Too baaget by into item				
Note	FY99			
Conservation easements, land purchase	384,000			
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Current rate 23.5%	90,240			
	0			
	\$474,240			
	Conservation easements, land purchase			

Outyear costs

Outyear costs	FY2000	FY2001	FY02	FY03
Total budget	\$250,000	\$250,000	0	0
O&M as % of total	0	0		

## Section 6. Abstract

Items included in this proposal include:

1. Habitat protection, i.e. "**Protect the Best**", through acquisition of property, or purchase of conservation easements, on one parcel that totals 192 acres, and another parcel of 40 acres, that overlie a highly braided reach of the Yakima mainstem. These parcels are in a remnant section that still expresses natural channel processes because the floodplain (which is roughly ¾ of a mile wide) remains connected to the channel. A climax riparian community of large cottonwoods and a willow/dogwood understory dominates both parcels, and the main channel splits into at least three side channels throughout both parcels.

The reach between Selah and Union Gap is only nine miles in length, but is critically important to salmonid recovery, because it serves as the "last chance" for summer migrating fry. Water temperatures immediately downstream reach lethal levels throughout the summer. Summer-migrating salmonids thus perish if they fall below this project reach.

Urban development with the City's of Union Gap and Yakima, transportation corridor construction, and irrigation diversions along a side channel and three tributary streams have significantly reduced habitat. Perhaps the most profound impact occurred when roughly eight miles of levee was constructed in response to the 1933 flood by the Army Corps of Engineers. Only one section remains in the project reach that is unconstrained. In this section, the owners of a 40 acre and a 192 acre parcels have expressed interest in selling either an easement or the property outright. These parcels overlie the main channel, which flows through several side channels at this location. Virtually the entire site is riparian bottom land, dominated by cottonwood overstory trees, willows, dogwoods and numerous other riparian shrubs. However, the manager of a gravel mining operation just upstream of one of the parcels is attempting to secure an options for the purchase of one or both parcels. If successful, conversion to a gravel mining operation would destroy much of the rearing habitat function of these parcels.

The goal of the project is to rebuild Yakima River spring chinook and steelhead populations, by securing easements or deed to one or both of these parcels. This would work in concert with other habitat protection/restoration efforts in the area, as well as overall fish recovery efforts in the entire basin. Most notably, the Yakima Klickitat Production Facility, now in place, intends to rebuild **naturally spawning populations** of wild anadromous salmonids. To reach this overarching goal, watershed protection efforts, such as this proposal, must be implemented.

The project is relevant to the 1994 Columbia Basin Fish and Wildlife program in that it will contribute to the protection and restoration of anadromous fish stocks in the Yakima Basin. Further, the project will protect habitat for terrestrial wildlife species through purchase of conservation easements and property.

The project is based upon the scientific principle that protecting a braided remnant of the Yakima River mainstem will maintain, in perpetuity, opportunities for fry/parr to access optimal rearing habitats, ultimately contributing to the rebuilding of Yakima Subbasin spring chinook salmon and summer steelhead populations. This will be achieved by the end of FY1999.

The results of reconnection and restoration will be monitored through snorkle surveys in the protected reach.

# Section 7. Project description

### a. Technical and/or scientific background.

The reach of the Yakima mainstem between Selah and Union Gap has suffered from inappropriate urban, transportation and irrigation development. Roughly eight miles of Army Corps' levee has been constructed. The population of Yakima County is currently growing at roughly 3% per year (OFM, 1990). Many landowners desire to construct a new home in the floodplain, as close to the stream as possible, to "get a view of the river". While new regulations have been promulgated in the last 25 years in an effort to protect ecological integrity, they have fallen far short of what is needed to meet that objective (new homes are now required to maintain a 100-foot buffer along most parts of the large streams in Yakima County now, but the floodplain in the subject reach is roughly ¾ mile in width. Given this regulatory climate, riparian and floodplain habitat function will not be assured without funding to prevent residential growth in sensitive areas.

This reach is only nine miles in length, but is critically important to salmonid recovery, because it serves as the "last chance" in summer for downstream migrating fry. Two major irrigation dams immediately below this reach divert enough water that summer maximum temperatures in the stream exceed lethal levels throughout most or all of the summer. Thus, summer-migrating fry perish if they move downstream of the target reach. The lower 106 miles of the river (half of its length) is inhospitable during the summer. This project is thus seen as an effort to optimize rearing habitat opportunities above the lethal zone.

This project is a complement to project #9006900, the Yakima Hatchery, which strives to rebuild **naturally spawning/rearing** stocks of anadromous salmonids. The intent to rebuild natural runs obligates fish managers to protect, reconnect and restore off-channel rearing habitats.

The success of this project is facilitated by another YIN riparian restoration project that was implemented in 1995-96, in the Cowiche Creek watershed. The Cowiche project was funded through the Environmental Protection Agency with Clean Water Act § 319 funds. The project's goal was to demonstrate the benefits of maintaining riparian habitat on agricultural land. As a result, habitat restoration/protection occurred on 15 private parcels. Meetings were conducted with 40 landowners. Awareness of the YIN's objectives for habitat protection and restoration was facilitated, which will help implement this project's objectives for habitat protection and restoration.

Mitigation for losses will occur in place, by protecting riparian, floodplain and off-channel rearing habitat function. Although funds were not formally awarded until December of 1997, much conceptual planning has already been undertaken. The first year's funding will be utilized to implement riparian restoration, construct one or two fish passage structures, possibly establish a conservation easement on an unrelated parcel, and enhance mainstem riparian habitat with cost-share monies from the eastern Washington Regional Fisheries Enhancement Group, and possibly with funding from the Army Corps of Engineers Section 1135 program. The FY99 funds will be used exclusively for permanent protection of the two subject parcels.

Previous work related to this proposal includes the following:

- 1. Spring Creek MOU A Memorandum of Agreement has been developed with the owners of a 110 acre floodplain parcel, to allow extremely limited development of the parcel at the far edge of the floodplain, while deeding roughly 85% of the parcel to a local land trust organization. Included in the memorandum is a perpetual right of access permit to allow the YIN to access the property to conduct fisheries and habitat monitoring, and habitat restoration, which will include levee obliteration, instream habitat and riparian restoration.
- 2. Full Bright Park alcove preliminary discussions have occurred with the local Conservation District, to implement a cost-share project in a city park, to conduct riparian restoration, instream habitat restoration, rearing alcove construction and environmental education.
- 3. Spring Creek fish passage Roughly two Creek Miles below the property described in #1 lies a 10 acre floodplain parcel with a partial or full artificial fish barrier near the mouth of Spring Creek. Unsuccessful attempts have been made to purchase a conservation easement from the landowner. However, the YIN is actively pursuing reestablishing fish passage on the parcel into Spring Creek for both adult and juvenile salmonids.

The proposed work is a logical component of the *Wy-Kan-Ush-Mi Wa-Kish-Wit*, the Yakima Subbasin Plan, and the 1994 Fish and Wildlife Program, because the project strives to protect the most productive habitat abutting the mainstems of the Yakima and Naches Rivers.

### b. Proposal objectives.

The objective of the overall project is to protect extremely high value rearing habitats and floodplain areas totalling as much as 232 acres, into perpetuity through conservation easement purchase and/or property acquisition. Property appraisals have not been conducted, but a conservative estimate is \$2000 per acre.

Products of the overall project include:

2. Permanent protection through conservation easements and property acquisition of up to 232 acres of extremely productive rearing and spawning habitat.

- 3. Fencing to protect riparian habitat from overgrazing;
- 4. Habitat restoration along riparian, off-channel and floodplain habitat;
- 5. Habitat reconnection to afford juvenile access into inaccessible habitats;
- 6. Floodplain reconnection to the river through levee obliteration and relocation; and,
- 7. Annual reports on project efforts and results, including amount of habitat protected, reconnected and restored.

#### c. Rationale and significance to Regional Programs.

As stated in 7.a., under current conditions in the Yakima Subbasin, rearing habitat function in the mainstem is sharply compromised because of irrigation delivery-related impacts on the hydrograph. Further, riparian and floodplain habitat function continues to degrade as more land is converted from farming/ranching to suburban development. In many locations, floodplain function has been permanently lost, because homes have been constructed within the channel migration zone, effectively precluding further natural channel meandering. Both legal and illegal diking has been undertaken in an attempt to protect floodplain dwellings from inundation. Even illegal dikes become institutionalized through time, and permits are issued for their repair when they are ultimately destroyed during a flood.

Residential development is occurring at a rapid rate along most of the Yakima mainstem, with roughly three percent annual growth rates. Additional recreational growth has occurred along the stream corridors that is not reflected in the growth forecasts. This project would protect two large parcels in a critical reach. **Each parcel hosts extremely high habitat function.** 

This project will further the goals of the Fish and Wildlife Program (FWP), through protecting at-risk, highly productive habitat. At section 7.6, the FWP states: "wild and naturally spawning populations of salmon and steelhead are generally at low levels throughout the Columbia River Basin as a result of impaired mainstem passage, blocked habitat, habitat degradation...". Later in the same section, the FWP states: "However, maintenance and recovery of anadromous fish resources will not be possible unless dramatic steps are taken to **protect existing high quality habitat... Habitat has decreased by more than a third...**" (emphasis mine). Under section 7.6A, the FWP states that the goals for rebuilding Columbia River salmon stocks include: "At a minimum, maintain the present quantity and productivity of salmon and steelhead habitat" (emphasis mine).

This project fits well with other habitat and fish production efforts ongoing in the basin, in that it focuses on protecting, rearing habitat on the mainstem Yakima River. In that ongoing fish restoration efforts strive to rebuild the natural-spawning population, "**protecting the best**" habitat is a critical watershed restoration step.

#### d. Project history

This project was approved as a deferred watershed project in FY97. Funds were not awarded until December 1997. The objectives will be met with existing YIN fisheries staff. As mentioned in Section 7.a. above, some work has already been undertaken to begin implementing the project, however much additional work remains. Perhaps the most important step that has been taken is that YIN staff have established comfortable rapports with two large private landowners. The first owner is working on a settlement agreement to include limited development, wetland and riparian buffer establishment, buffer restoration, right of access permits and conservation easements to restore/protect habitat function, while still meeting the economic goals of the family. Through this land management agreement, much habitat restoration will occur, and habitat function will be protected in perpetuity. The other landowner owns a 192 acre parcel, and his family is interested in negotiating a sale or establishment of a conservation easement on that parcel.

#### e. Methods.

This watershed restoration project is based upon the scientific principles that:

- in the face of rapid residential development, off-channel and floodplain habitats that have high functional value must be protected in perpetuity in order to maintain their function; and,
- opportunities to protect, reconnect and restore rearing and floodplain habitats are being lost incrementally, as land is converted from farming to more intensive uses.

Both of these principles are called for in the document <u>Return to the River</u>, which recommends: "A well-distributed network of reserve watersheds and riverine habitat patches, based on the current distribution of strong subpopulations of native salmonids, should be designated and protected from new land-disturbing activities in order to establish experimental natural baselines for evaluation of effectiveness of management practices and to establish a biological hedge against possible failure of BMP's to conserve and enhance aquatic habitat in treated areas" (Return to the River, 1996).

Tasks and methodology have been described in detail in the 1997 Standard Template for Projects form that was forwarded to the BPA for this project when it was initially funded (Standard Template for Projects, Enhancement Between Selah and Union Gaps, Project #9705200). The tasks, **many of which have been partially or wholly completed**, are summarized below:

- Task 1.1: Collect maps, ownership information, consult with real estate organizations. Formulate data sheets.
- Task 1.2: Obtain permission to access private properties.
- Task 1.3: Conduct field surveys.
- Task 1.4: Prioritize habitat protection candidates based on cost/benefit analysis. If necessary, conduct Habitat Evaluation Procedures to develop a priority list for purchase.
- Task 1.5: Develop MOA's with interested private landowners and land trust organizations.
- Task 1.6: Conduct land appraisals, hazardous materials assessments and lot line surveys where required.
- Task 1.7: Purchase property and/or conservation easements.
- Task 1.8: Construct fences where necessary.
- Task 2.1: Consult aerial photographs, conduct field surveys in key stream reaches.
- Task 2.2: Prioritize habitat reconnection candidates based on cost/benefit analysis.
- Task 2.3: Develop MOA's with affected agencies, companies and private landowners.
- Task 2.4: Develop construction plans.
- Task 2.5: Release construction proposals for bids.
- Task 2.6: Secure bids, implement projects.
- Task 3.1: Consult aerial photographs, conduct field surveys in key stream reaches.
- Task 3.2: Prioritize habitat restoration projects based on cost/benefit analysis.
- Task 3.3: Develop MOA's with affected agencies, companies and private landowners.
- Task 3.4: Develop restoration plans.
- Task 3.5: Release construction-related portions of restoration projects for bids.
- Task 3.6: Secure bids, implement projects.
- Task 4.1: Conduct snorkle and/or electrofishing surveys in restored stream reaches.
  - Task 4.2: Conduct statistical analysis' on smolt outmigration
  - numbers at the Chandler juvenile facility.
- Task 4.3: Report project activities, including findings of snorkle surveys.

Project benefits will be tested through snorkle surveys in reconnected off-channel habitats. Environmental protection will be required for all work within the ordinary high water mark via statutory authority of the Washington State Hydraulics Code. Additional environmental protection measures will be required through the National Environmental Protection Act. Temporary risks to other organisms stem from construction related activities. Permanent alteration of riparian habitat may occur through reconnection of streams to their attendant floodplains, and through increasing flow into off-channel rearing habitats (Note: environmental risks, and protection measures will not be required for tasks implemented in FY99, because only passive habitat measures will be undertaken).

Fisheries managers expect that permanent protection of off-channel rearing habitats and floodplains will provide sustained riverine productivity for anadromous salmonids.

# f. Facilities and equipment.

The project utilizes the YIN fisheries office building as a main office. Vehicles are leased through GSA. Budgeting for field equipment needed was made in the fy97 application. Additional field equipment is available through the YIN fisheries program. One office computer has been secured. No special or high-cost equipment will be required.

### g. References.

Rondorf, D.W., and K.F. Tiffan. 1997. Identification of the spawning, rearing and migratory requirements of fall chinook salmon in the Columbia River Basin. Annual Report 1995. DOE/BP-21078-5, Bonneville Power Administration, Portland, Oregon.

Koch, G. 1996. Cowiche Creek Riparian Zone Restoration Project Final Report, Submitted to the Environmental Protection Agency. Yakama Nation Fisheries Resources Program.

Office of Financial Management. 1990. 20-year Populations Projections for Washington State.

Return to the River: Restoration of Salmonid Fishes in the Columbia River Ecosystem. Prepublication Copy. 1996. The Independent Scientific Group.

Yakima River Subbasin Plan. 1990. Prepared for the Columbia Basin Fish and Wildlife Authority. YIN, WDF, WDW.

# Section 8. Relationships to other projects

Other projects funded under the FWP include project #9006900, the Yakima Hatchery, which strives to rebuild **naturally spawning/rearing stocks of anadromous salmonids**. The Yakima Side Channels Project is critical to the success of the hatchery, because habitat function of off-channel habitats has been severely reduced due to flow regulation. The hatchery's intent to rebuild natural runs obligates fish managers to protect, restore and reconnect the mainstem with off-channel and floodplain habitats where possible, to regain the ecological function that the watershed expressed historically.

This project is a logical progression from BPA project #96FC96064, the Wilson Creek Riparian Zone Restoration Project. Although they are not critically linked, the riparian restoration project has educated many landowners on fish resources found in the Yakima subbasin, and the need to maintain healthy stream habitat. Currently the YIN has a working rapport in Wilson Creek never before experienced. Several third-generation landowners have given YIN biologists permission to access their property as needed to conduct habitat restoration work.

Another complementary YIN riparian restoration project was implemented in 1995-96, in the Cowiche Creek watershed. This project was funded through the Environmental Protection Agency with Clean Water Act Section 319 funds. Again, demonstrating the benefits of maintaining riparian habitat on agricultural land was the goal. Through this project, habitat restoration/protection occurred on 15 private parcels. Meetings were conducted with 40 landowners. A total of twelve presentations were given to the following groups: local science teachers (through the Education Service District), the Yakima Chapter of the Cattleman's Association, the local Cowiche Creek landowners (public meeting), the Yakima County Weed Board, the Yakima River Basin Watershed Council (YRBWC) Water Quality Committee and the Executive Committee, the Mission Brender Yaxsum Watershed Group, the Cowiche Canyon Conservancy annual meeting, the Cowiche Canyon Conservancy Earth Day Hike (two consecutive years), the Yakima Greenway Foundation Earth Day, and the Ellensburg Rotary Club. In addition, the Cowiche project was highlighted at two riparian restoration workshops, one hosted by the Yakama Nation and another by the Chelan County Conservation District. Informal presentations were given to school field trip groups as well. At the end of the project, an instructional manual was created and given to interested landowners. (Cowiche Creek Riparian Zone Restoration Project, EPA, Final Report)

The project is related to BPA project #9705100 titled "Yakima Basin Side Channels" which strives to protect, restore and reconnect off-channel and floodplain habitats in four reaches of the mainstem Yakima and Naches Rivers.

# Section 9. Key personnel

Scott Nicolai, Assistant Environmental Manager, YIN Fisheries Resources Program. Duties will include project oversight. Qualifications include Masters Degree in Natural Resources Management, six years experience working in the field of fisheries habitat management, project oversight on five large habitat restoration projects and numerous small projects. Current employer is the Confederated Tribes and Bands of the Yakama Indian Nation. Job completions include the Cowiche Creek Riparian Zone Restoration Project, the lower Wilson Creek barrier/diversion survey report, the Brunson bioengineering bank stabilization and riparian habitat restoration project, and the Teanaway Junction Side Channel enhancement project. Additional ongoing job requirements include review and comment on SEPA documents, NEPA documents, Shoreline, Hydraulics and 404 permits, and Growth Management Act Plans. Also tracks and provides technical input to local Watershed Councils.

# Section 10. Information/technology transfer

The technical information resulting from this project (and its component tasks) will be distributed in the following ways:

- A completion (annual) report will be submitted to Bonneville at the close of the fiscal (calendar) year and Bonneville will distribute copies to all individuals and agencies on its mailing list.
- Excerpted data will be appropriately formatted and submitted to the Northwest Aquatic Information Network (StreamNet) and made available to the public via the Internet.
- Community "town hall" type meetings will be held as deemed necessary in areas near where work is proposed.